

ABSTRACT

A drive device for a piezoelectric actuator, wherein the time needed to achieve highly efficient drive conditions is shortened to reduce power consumption, and stabilized control can be performed. The device has a phase difference detection device (phase difference/voltage conversion circuit (51)) for detecting detection signals of longitudinal oscillation and bending oscillation from an oscillator (5) and detecting the phase difference between these two signals, frequency control devices (52 to 56) for comparing the phase difference detected by the phase difference detection device with a standard phase difference value and controlling the frequency of a drive signal sent to a piezoelectric element (17) on the basis of the results of this comparison, and an amplitude detection device (amplitude detection circuit (57)) for detecting the amplitude of the detection signal of the piezoelectric element (17). The frequency control device compares the amplitude with a standard amplitude value and controls the frequency of the drive signal on the basis of the results of this comparison.